

APPENDIX I

Performance scales

Karnofsky performance index

Definition		
Able to carry on normal activity and to work	100	Normal; no complaints; no evidence of disease
	90	Able to carry on normal activity; minor signs or symptoms of disease
	80	Normal activity with effort; some signs or symptoms of disease
Unable to work; able to live at home, care for most personal needs; a varying amount of assistance is needed	70	Cares for self; unable to carry on normal activity or to do active work
	60	Requires occasional assistance, but is able to care for most of his needs
	50	Requires considerable assistance and frequent medical care
Unable to care for self; requires equivalent of institutional or hospital care; disease may be progressing rapidly	40	Disabled; requires special care and assistance
	30	Severely disabled; hospitalization is indicated although death not imminent
	20	Very sick; hospitalization necessary; active supportive treatment necessary
	10	Moribund; fatal processes progressing rapidly
	0	Dead
From Karnofsky DA, Abelmann WH, Craver LF, et al: The use of the nitrogen mustards in the palliative treatment of carcinoma. Cancer 1:634–656, 1948.		

The Karnofsky performance index and WHO (Zubrod) scale (on the following page) are included here because they are commonly used as proxy measures for quality of life. Because they measure only one dimension of the construct, they would not be considered quality-of-life measures by today’s standards. However, given their historical relevance and current high frequency of usage as proxy measures, we have included them here.

WHO (Zubrod) scale

This scale is used to measure performance of which the patient is *capable*. For example, a patient in the hospital for metabolic studies may be fully capable of performing normal activities, but will remain in bed through his or her own choice. Such a patient should be coded 0, “normal.”

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|---|------------------------------------------------------------------|
| 0 | Normal activity |
| 1 | Symptoms, but nearly fully ambulatory |
| 2 | Some bed time, but needs to be in bed
< 50% of normal daytime |
| 3 | Needs to be in bed > 50% of
normal daytime |
| 4 | Unable to get out of bed |

From Zubrod CG, Schneiderman M, Frei E III, et al: Appraisal of methods for the study of chemotherapy of cancer in man: Comparative therapeutic trial of nitrogen mustard and triethylene thiophosphoramide. *J Chron Dis* 11:7–33, 1960.